



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

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AIR PROTECTION BRANCH

April 1, 2010

James A Capp, Chief
Air Protection Branch
Environmental Protection Division
Georgia Department of Natural Resources
4244 International Parkway, Suite 120
Atlanta, Georgia 30354

Dear Mr. Capp:

Thank you for sending the preliminary determination/statement of basis and draft prevention of significant deterioration (PSD) permit for the Vogtle Electric Generating Plant dated March 4, 2010. The project is for the construction and operation of equipment to support new nuclear Units 3 and 4 at their electric generating plant located at 7821 River Road, in Burke County, Georgia. Modifications include 4 new cooling towers, 13 new diesel engines and new diesel fuel storage tanks. Total emissions from the proposed project are above the thresholds requiring PSD review for nitrogen oxides (NO_x), carbon monoxide (CO), particulate matter (PM/PM₁₀/PM_{2.5}), sulfur dioxide (SO₂), and volatile organic compounds (VOC).

Based on a review of the PSD application, preliminary determination/statement of basis and draft PSD permit, we have the following comments:

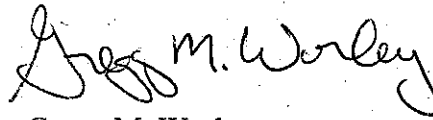
1. Upon review of the permit application as well as Southern Company's response to comments from EPD dated September 11, 2009 and the preliminary determination, the U.S. Environmental Protection Agency (EPA) Region 4 considers the Best Available Control Technology (BACT) analyses for NO_x, CO, PM/PM₁₀/PM_{2.5}, SO₂, and VOC to be incomplete. Although various options are identified in each analysis, the applicant states that without specific engine data a complete analysis of each technically feasible technology is not possible. The application and subsequent communication from the applicant proposes emissions limits similar to those established for recently permitted facilities as identified in the RBLC database. Although EPA agrees that the end result may be comparable, this method does not adequately document a complete BACT analysis as required for the Vogtle Electric Generating Plant facility. Data from engines currently in use for generating plant Units 1 and 2 or from engines being considered for use in the newly constructed units may be used to formulate reasonable BACT limits and complete the "top down" method as detailed in the 1990 draft U.S. E.P.A. *New Source Review Workshop Manual*.
2. On January 22, 2010, EPA signed into law a new National Ambient Air Quality Standard (NAAQS) for nitrogen dioxide (NO₂). The new standard is a 1-hour standard set at the level

of 100 parts per billion (ppb). The effective date of the new NAAQS will be April 12, 2010. If the final PSD permit for the Vogtle Electric Generating Plant has not been issued by the time the new NAAQS is effective, the Division will need to include the appropriate air quality analysis before a final PSD permit is issued.

3. In reviewing the draft permit and preliminary determination, Region 4 finds that the permitting authority has not provided an adequate rationale to support the use of the PM_{10} surrogate approach for this project. The preliminary determination should contain an analysis as to whether or not PM_{10} is a reasonable surrogate for $PM_{2.5}$ under the facts and circumstances of the specific project at issue and not proceed with the general presumption that PM_{10} is always a reasonable surrogate for $PM_{2.5}$. At this time the best example we have for completing a $PM_{2.5}$ analysis is the one done for Louisville Gas and Electric in Kentucky. I have attached it for your reference. In addition, please find attached the Memorandum from Steve Page issued on March 23, 2010 *Modeling Procedures for Demonstrating Compliance with $PM_{2.5}$ NAAQS*.

If you have any questions regarding these comments or need additional information, feel free to contact Lori Shepherd at 404-562-8435.

Sincerely,



Gregg M. Worley

Chief

Air Permits Section

Enclosures